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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,750	09/29/2006	Takahiro Kojo	129412	4932

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EXAMINER	
AMIN, BHAVESH V	

ART UNIT	PAPER NUMBER
3664	

NOTIFICATION DATE	DELIVERY MODE
08/09/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/594,750	KOJO ET AL.	
	Examiner	Art Unit	
	BHAVESH V. AMIN	3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 June 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/17/2010 have been fully considered but they are not persuasive. Where applicant argues, "There is nothing in Hadeler that can reasonably be construed to teach judging different abnormalities and executing different corrections." This is not persuasive, as applicant notes that Hadeler has a range and hence uses more than one value to determine the correct action and thus meet's applicant claim limitation. Where a comparison is made with respect to the values that are within the range and allows a decision to be made based on that information and hence is a "judging" function.

2. Where applicant argues, "The specification explains that the control is decreased by decreasing the controlling amount at a relatively moderate speed properly adjusted to the speed at which the abnormality comes out in the results of control. However, when an abnormality has occurred in a controlling amount by an abnormality of the calculating portion, the control is adjusted at a relatively high speed. See specification at page 13, lines 4-12. Generally, it is appropriate to more quickly cease the control when an abnormality has occurred. When an abnormality occurs in an operating portion in an early stage, it takes time to judge the abnormality. The recited control system appropriately deals with an abnormality of an operating portion and an abnormality of a controlling amount. This may be critical in controlling vehicles when an abnormality occurs. Hadeler does not teach these features and does not recognize the unforeseen benefits achieved by the subject matter of the pending claims. Therefore, Hadeler does

not anticipate, and would not have rendered obvious, claim 1." Applicant is advised that the claims are read in light of the specification and the specification is not read into the claims, furthermore the claims are read with the broadest possible interpretation. Hence applicant's arguments are not persuasive.

Response to Amendment

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1 – 5** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hadeler et al. US Patent 5,809,444 (hereafter referenced as Hadeler).

Regarding **claim 1** where it is disclosed by Hadeler in column 8 lines 35 – 65 to have a system that has an operating member that can be adjusted to change the behavior of the vehicle as is further shown in Fig 3. Hadeler further discloses in column 7 & 8 lines 14 – 67 & 1 – 65, how their system can also determine if there is an error between the desired controlling amount and the actual controlling amount and hence adjust the limits based on that information. this is read upon by applicant's claim to, "A control system comprising an operating device for operating a member for adjusting a behavior of a vehicle [fig 3 & column 8 lines 35 - 65], and a calculating device for calculating a controlling amount for controlling the operation of the operating device [fig

3], wherein the calculating device; judges an abnormality of the operating device and separately judges an abnormality of the controlling amount [fig 2, 3, 4 & 5], and decreases the controlling amount at a higher speed when the abnormality of the controlling amount was judged than when the abnormality of the operating device was judged [column 7 & 8 lines 14 – 67 & 1 – 65 respectively]."

Where if these are not found to be inherent then it would have been obvious as Hadeler does disclose their system having a way to determine an error/abnormality of a device which can change the behavior of the vehicle (brakes). The system does further disclose their system having two different controllers which out put values which are compared against each other to determine a max and min value for the operating device to work within. This comparison would indicate that the system is "judging" the out putted value against a range thus not one value but many values. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to modify Hadeler to improve the vehicle dynamics and hence improve vehicle safety.

Regarding **claim 2** where it is further disclosed by Hadeler to have their system compare two different values from two different controllers as is shown in Fig 2 and described in columns 5 & 6. In column 5 & 6 it described how the system uses information calculated from controllers 102 & 202 to determine the errors and update the thresholds from this information. This is read upon by applicant's claim to, "A control system according to claim 1, wherein the calculating device comprises a first calculating portion and a second calculating portion for calculating a first controlling amount and a second controlling amount, respectively, so as to judge the abnormality of the

controlling amount by comparing the first controlling amount and the second controlling amount with one another."

Regarding **claim 3** where it is disclosed by Hadeler in column 6 lines 1 – 31, as to how their systems controller brakes the vehicle and can update the thresholds/limits/errors if the conditions change. This is read upon by applicant's claim to, "A control system according to claim 2, wherein even when it was judged that the abnormality has occurred in either the first controlling amount or the second controlling amount, control of the operation of the operating device thereafter is carried out by decreasing the controlling amount which has been used up to the time in the control of the operation of the operating device."

Regarding **claim 4** where it is disclosed in column 4 lines 38 – 60 as to how Hadelers' system can adjust the controlling device and once it is determined that the error between the actual and desired values then the controlling amount controlling the device can be decreased or not be changed. This is read upon by applicant's claim to, "A control system according to claim 2, wherein when it is judged which of first controlling amount and the second controlling amount is abnormal, thereafter the operation of the operating device is controlled by using which of the first controlling amount and the second controlling amount was judged not to be abnormal to decrease the one of the first controlling amounts and the second controlling amount that was judged not to be abnormal."

Regarding **claim 5** where it is disclosed by Hadeler to have their system continuously have the monitoring of the vehicle sensors to adjust the limits on the

values for wheel speeds and yaw etc. This allows for dynamic control of the vehicle and hence is read upon by applicant's claim to, "wherein the abnormality judging of the controlling amount is carried out when the operating device is not judged to be abnormal." This is disclosed by Hadeler in Fig 3 where it can be seen that the device takes inputs all the time and allows for the correction if required and none if none is required. If this is not found to be inherent then it would have been obvious to one of ordinary skill in the art at the time of invention to have modified Hadeler to have no out put if no correction was required. So in other words why adjust or correct some thing when the values are within the predefined threshold or exactly what they are supposed to be.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hadeler and further in view of Dickinson et al. US Patent 5,857,160 (hereafter referenced as Dickinson).

Regarding **claim 6** where all the limitations of claim 1 are disclosed by Hadeler, whom does not specifically disclose the further limitation of, "the operating device is a steering angle adjusting device for adjusting a steering angle of steered wheels relative to a steering amount by a steering wheel, and the decrease of the controlling amount

and the operation of the operating device is to decrease the steering adjusting amount of the steered wheels to 0."

This is disclosed by Dickinson in Figs 2, 3 & 7 where it can be seen that their device can control the amount of steering assist and also determine that no assistance is required and hence drop the assistance to the wheels to "zero." Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify Hadeler by Dickinson to allow for accurate steering and turning response by better determining the actual steering rotation and hence improve safety of the vehicle.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BHAVESH V. AMIN whose telephone number is (571)270-3255. The examiner can normally be reached on M - T, Friday off, 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. V. A./
Examiner, Art Unit 3664
/KHOI TRAN/
Supervisory Patent Examiner, Art Unit 3664